

Dow Corning® QP1-2XX Liquid Silicone Rubber Materials

Enhanced Rheology, Fast Cure and Proven Performance

Rising medical expenditures, increasingly stringent healthcare regulations and growing demand for both disposable and more-complex medical devices are all driving healthcare OEMs and fabricators to seek versatile, new material technologies.

In answer to these converging trends, Dow Corning scientists and medical device experts have expanded further our broad portfolio of high-performance liquid silicone rubber (LSR) solutions for medical devices and components. The new Dow Corning® QP1-2XX LSRs are platinum-catalyzed, heat-cured silicone elastomers designed specifically for liquid injection molding processes.

Compared with other silicone materials, Dow Corning® QP1-2XX LSRs deliver improved rheology, enabling them to flow quickly and fully at lower pressures into intricate mold cavities. Potentially, this makes them ideally suited for high-volume liquid injection molding or for small and highly intricate parts.

The low viscosity, batch-to-batch consistency, and fast cure profile of these LSRs can typically help to reduce cycle times by up to at least 15 percent when compared with other silicone materials — potentially optimizing production costs.

Dow Corning® QP1-2XX LSRs are manufactured in accordance with the ISO 9001 standards for quality management to ensure a reliable, global supply of consistent, high-quality solutions for healthcare applications.

Dow Corning is a trusted global supplier of advanced healthcare materials dedicated to innovating products that deliver cost-optimization opportunities to customers, shot-to-shot consistency for OEMs, and cycle time improvements for fabricators — in addition to optimization of manufacturing performances.

Product Range

The line of Dow Corning® brand QP1-2XX* Liquid Silicone Rubber (LSR) materials includes five products:

- Dow Corning® QP1-230 LSR
- Dow Corning® QP1-240 LSR
- Dow Corning® QP1-250 LSR
- Dow Corning® QP1-260 LSR
- Dow Corning® QP1-270 LSR

Features

- Two-part platinum-catalyzed silicone elastomers
- No peroxides, peroxide byproducts, chlorophenyls, PCBs, organic plasticizers, latex additives or solvents
- Meets selected biocompatibility standards for potential use in:
 - Short-term implant, non-implant, surgical suite and consumer healthcare applications
 - Class 2 medical equipment, such as valves, membranes, O-rings, seals, small connectors and wearable devices
- Available in a range of hardness (30 to 70, Shore A durometer)
- Improved rheology profile helps optimize manufacturing performance and costs
- United States Pharmacopeia (USP) Class VI
- Warranted for tissue culture
- Notification provided on changes to process and formulation
- Manufactured in accordance with ISO 9001 quality standards
- Batch-to-batch consistency
- Fast cure
- Long pot life
- Non-blooming
- Pigmentable
- Formulated to help meet European requirements for food-contact applications

*XX = 30, 40, 50, 60 or 70, representing durometer hardness

Advancing healthcare through
material innovations



The following table offers a brief comparison of *Dow Corning*[®] QP1-2XX LSR materials, *Dow Corning*[®] QP1 LSR materials, *Dow Corning*[®] Class VI Elastomer materials and *Silastic*[®] BioMedical Grade (BMG) Elastomers.

	<i>Dow Corning</i> [®] QP1-2XX LSR	<i>Dow Corning</i> [®] QP1 LSR	<i>Dow Corning</i> [®] C6 LSR	<i>Silastic</i> [®] BioMedical Grade LSR
Potential Applications	<ul style="list-style-type: none"> Non long-term implant Medical insert Selected short-term implant (< 30 days) Non-implant Food contact application 	<ul style="list-style-type: none"> Non long-term implant Medical insert Selected short-term implant (< 30 days) Non-implant Food contact application <ul style="list-style-type: none"> 21 CFR 177.2600 (food grade) 	<ul style="list-style-type: none"> Non long-term implant Medical insert Selected short-term implant (< 30 days) Non-implant Food contact application <ul style="list-style-type: none"> 21 CFR 177.2600 (food grade) 	<ul style="list-style-type: none"> Long-term implant (> 30 days, indemnification needed) Medical insert Selected short-term implant (< 30 days) Non-implant Food contact application <ul style="list-style-type: none"> 21 CFR 177.2600 (food grade)
Quality System	<ul style="list-style-type: none"> ISO 9001 Quality Management System 	<ul style="list-style-type: none"> ISO 9001 Quality Management System 	<ul style="list-style-type: none"> ISO 9001 Quality Management System Produced in GMP facility* 	<ul style="list-style-type: none"> ISO 9001 Quality Management System Produced in GMP facility*
Documentation	<ul style="list-style-type: none"> Summary of Health Data ▲ 	<ul style="list-style-type: none"> Summary of Health Data 	<ul style="list-style-type: none"> Regulatory summary Summary of Health Data 	<ul style="list-style-type: none"> Regulatory summary Summary of Health Data EU Technical File/US Drug Master File
Testing	<ul style="list-style-type: none"> USP Class V and VI Select ISO 10993 <ul style="list-style-type: none"> Cytotoxicity 7-day implant Skin irritation Skin sensitization ▲ 	<ul style="list-style-type: none"> USP Class V and VI Select ISO 10993 <ul style="list-style-type: none"> Cytotoxicity 7-day implant Skin irritation Skin sensitization 	<ul style="list-style-type: none"> USP Class V and VI Select ISO 10993 <ul style="list-style-type: none"> Cytotoxicity 30-day implant Skin sensitization Select EP 3.1.9. <ul style="list-style-type: none"> Volatile matter Substance soluble in hexane (SSH) 	<ul style="list-style-type: none"> USP Class V and VI Select ISO 10993 <ul style="list-style-type: none"> Cytotoxicity 30-day and 90-day implant Hemolysis Skin sensitization Mutagenicity/Genotoxicity Pyrogenicity (USP) Select EP 3.1.9. <ul style="list-style-type: none"> Volatile matter Substance soluble in hexane (SSH)
Other	<ul style="list-style-type: none"> Shore A, hardness 30-70 Notification for change Manufactured in Wiesbaden, Germany 	<ul style="list-style-type: none"> Shore A, hardness 20-75 Notification for change Manufactured in Wiesbaden, Germany 	<ul style="list-style-type: none"> Shore A, hardness 30-70 Dow Corning Healthcare Industries Materials Site (HIMS) change notification policy Manufactured at HIMS (USA) 	<ul style="list-style-type: none"> Shore A, hardness 30-70 Dow Corning Healthcare Industries Materials Site (HIMS) change notification policy Manufactured at HIMS (USA)

*Following principles of 21 CFR 820 (Medical Device Quality System Regulation/Good Manufacturing Practices)

▲ Items currently in process

How can we help you today?

When you need innovation, Dow Corning can help. We are dedicated to meeting your needs for specialty materials, collaborative problem solving and innovation support. Learn more at dowcorning.com/healthcare.

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